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ABSTRACT

New Jersey's Task Force on Education and Workforce Quality was formed in 1995 to develop recommendations to ensure a strong, mutually beneficial relationship between New Jersey's education system and the needs of its evolving labor market. The task force conducted a needs assessment that was mailed to approximately 1000 New Jersey employers (response rate, 10%) and held hearings in 4 New Jersey towns that were attended by 116 individuals. Among the topics/issues examined by the task force were the following: purpose of education; education's role in relation to global competition, the changing workplace, new understanding of learning/education, and technology; New Jersey's current demographics and labor market; skills, competencies, and delivery systems; integrated stakeholders; and accountability measurement. Among the task force's recommendations regarding connecting activities/oversight, stakeholder education, curriculum, and state leadership were the following: work force investment boards must play a major role in forming local educational partnerships and connecting stakeholders promoting school-to-work/work-to-school initiatives; teacher certification requirements and preservice/inservice training must be improved to reflect the new work force readiness agenda; and curricula must reflect customer needs more fully. (Appended are the employer needs assessment results and statements of some of the 36 individuals testifying at the 4 hearings.) (MN)

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ED 404 439

Linking Education and the Workplace: An Imperative for New Jersey's Economic Future

Task Force on Education and Workforce Quality

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Linking Education and the Workplace:
An Imperative for New Jersey's Economic Future

Executive Summary

The purpose of the Task Force on Education and Workforce Quality is to develop recommendations to ensure a strong, mutually beneficial relationship between the education system and the needs of the evolving labor market. Educators and employers must maximize learning opportunities for students, workers, and those seeking employment, clearly showing the connection between learning and "real world" applications and performance. At the same time, greater articulation and integration of all sectors of the educational system will facilitate lifelong learning and provide a seamless transition from one level to the next. Employers, educators, and learners must be seen as primary customers of the system and its outcomes must reflect the needs of these stakeholders. Parents must also be viewed as primary customers of the system when programs for nonadult learners are considered.

The work of this Task Force and its report must be understood in the larger context of State Employment and Training Commission (SETC) policy initiatives that seek to improve New Jersey's workforce readiness system.[1] In pursuit of this purpose, three significant policy changes have recently been implemented. First, Governor Whitman issued Executive Order #36 establishing Workforce Investment Boards responsible for local workforce policy planning. Second, New Jersey received a $37 million federal grant for the School-to-Work Opportunities Initiative to more closely connect school-based education and work-based education. To fully carry out the School-to-Work mandate, Workforce Investment Boards will serve as a focal point for connecting schools, employers, and other stakeholders to ensure the integration of a strong and forward looking "School-to-Work" curriculum in all of New Jersey's schools. Third, the State also received $4.7 million, the first year installment of a three year federal grant, to implement the One-Stop Career Center System. New Jersey's One-Stop System will fundamentally change the way workforce readiness services are delivered. Through the use of technology, staff training, and policy guidance by local Workforce Investment Boards, performance-driven One-Stop Career Centers will integrate services and provide for customer choice and universal access.

A core assumption driving these initiatives is the realization that New Jersey's workforce readiness system must be dynamic and responsive to the massive changes in the economy. "A modern, globally competitive and productive economy demands a workforce capable of learning new technologies, new organizational structures and the necessity of working cooperatively in a culturally diverse workplace.

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[1] John Heldrich, Chair of the State Employment and Training Commission, defines the workforce readiness system as all the services and programs that enable youth and adults to acquire the skills needed by employers. (See "Making Way for a World Class Workforce in New Jersey," New Jersey Bell Journal, Vol 14, #2, Summer 1991.)

The rapid pace of change in these areas means that education cannot end with a certificate of proficiency or even a college degree but must be integrated into the work-life of individuals."[2]

Other initiatives to improve specific segments of the education system promise to have significant impact on workforce readiness. Notable among these are the Core Curriculum Content Standards recommended by the State's Department of Education, the Master Plan for Higher Education in New Jersey, recommended by the Commission on Higher Education, and Technology and New Jersey's Schools in the 21st Century, a report of the Education Technology Task Force of the Commission on Business Efficiency of the Public Schools.

This report of the Task Force on Education and Work Force Quality offers compelling logic for change and provides a vision for an improved educational system that is responsive to the needs of the evolving global and technologically driven economy. The recommendations address four broad areas:

- **Connecting Activities and Oversight**
  Workforce Investment Boards (WIBs) must play a major role in forming local educational partnerships and connecting stakeholders to a system that promotes School-to-Work and Work-to-School initiatives. These partnerships must include employers, organized labor, postsecondary institutions, community-based organizations, training and development organizations, as well as schools. Likewise, the educational system should fully integrate all its sectors to ensure seamless transitions from one level to the next and to better coordinate its services so that all learners will have optimal and continuous opportunities to improve and develop their potential. Schools must have the flexibility to excel, and they must also be accountable for their outcomes.

- **Stakeholder Education**
  Certification requirements and pre-service and in-service training for educators must be improved to better reflect the new workforce readiness agenda. Educators must also be afforded opportunities to participate in the workplace in order to gain an understanding of the world in which their students must apply their skills. Likewise, they must model lifelong learning by continually developing and upgrading their skills both in their discipline and in the utilization of technology. Parents, school board members, and workplace mentors and coaches must also be trained to participate in the process and encourage learners.

- **Curriculum**
  The curriculum must more fully reflect the needs of the customers. Technology must be

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[2] Quoted from the 1996 revised draft of A Unified State Plan for New Jersey's Workforce Readiness System. The plan, which provides a policy framework for workforce readiness strategies within the State, was originally issued in 1992.

exploited to enhance learning and expand the classroom beyond the school. Programs must be flexible, allowing learners to enter and exit at their own pace. Work-based as well as school-based learning must be integral to the curriculum and fully integrated with one another to provide a "real world" context for learning. A broad set of skills, including academic, vocational, work readiness, and entrepreneurial, must be emphasized and assessment procedures must better reflect the new curriculum.

- **State Leadership**

  The State Employment and Training Commission (SETC) will continue to facilitate the development of a world-class workforce readiness system for New Jersey by incorporating this reform agenda into the update of A Unified State Plan for New Jersey's Workforce Readiness System and establishing a task force/work group to coordinate and oversee this agenda and facilitate policy deployment. The Task Force urges the State to institute a strategy for giving all learners access to technology that will facilitate learning.

Introduction

We live in a world driven by technology. The ability to understand and manage information is becoming critically important. This much is clear: our children will not be able to succeed in the economy of the next century if their education doesn't meet the standards of this century.

Governor Christine Todd Whitman
1996 State of the State Address

This is a report developed by the State Employment and Training Commission's Task Force on Education and Workforce Quality, formed in 1995. The purpose of the Task Force is to develop recommendations to ensure a strong connection between the education system and the labor market. The dramatic changes that have taken place in the labor market over the past quarter century necessitate the creation of a workforce with new expectations and skills. It is crucial for the educational system -- encompassing K-12, postsecondary, and adult education and literacy programs -- to both acknowledge these changes and reflect them in its curriculum. Likewise it is essential to better connect these programs with the training establishment, which includes government second chance training, e.g., JTPA and Job Corps and employer as well as organized labor training. Together, the latter two are estimated to spend as much as $210 billion annually to train workers. Employee wages are factored into that total. [3]

Purpose of Education

Education must prepare learners to effectively meet the challenges of the society in which they live. In our current system, we wrongly draw a dichotomy between academic and vocational education. From this perspective, academic education is viewed as higher level learning, with adherence to the liberal arts tradition. Vocational education, often assumed to be synonymous with "hands-on" learning or "training," is reserved for students who cannot successfully pursue higher education. This artificial distinction places greater value on abstract learning, while it looks suspiciously at vocational education and training because of its applied and practical nature. Clearly, however, the purpose of education in our society is multifaceted; students need to think and do. Learners must acquire strong academic skills but be able to apply them to their real-world contexts. Similarly, all learners must develop skills necessary to function in the workplace and to continue learning in the classroom, at the job, and in the many other environments that provide growth opportunities.

Central to the educational system's mission is the responsibility of preparing people to meet the demands of the workplace. Virtually all youth at some point will enter the labor market and their ability

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[3] Carnevale, Gainer, and Villet, Training in America: The Organization and Strategic Role of Training, San Francisco: Jossey -Bass, 1990.

to succeed in this arena will, in part, reflect the quality of the skills, knowledge, and competencies acquired in the classroom. Likewise, it is becoming increasingly essential for adults, those currently in the workforce and those reentering, to take advantage of educational opportunities to better prepare for present and future work roles. Lifelong learning has become a necessity for a large portion of our workforce. Education/training providers must offer an array of opportunities for the labor force so citizens can continue to acquire necessary skills to succeed in the workplace. Providers must equip workers with the skills to be effective self-directed learners.

An education that prepares people for work and helps them continually upgrade their skills should not be narrowly focused to specific jobs. Certainly, job/task specific learning is appropriate for certain situations. However, the overall learning package that is provided to all students, workers, and those seeking employment must be broad-based, preparing them equally for work and further education, for meeting the needs of the workplace or creating entrepreneurial opportunities. "All students must be equipped to adapt to changes and develop higher-order thinking and problem solving skills to meet the needs of the dramatically changing work place."[4]

Education and the Economy

The fact is that education has become a necessity, an absolute requirement, if workers are to perform adequately, find fulfillment in their lives, and contribute to our advancement as a country. Through technology and communications, a new world is emerging that continually calls for training.

Eurich, The Learning Industry: Education for Adult Workers.[5]

Many leaders in both the education and employment communities have pointed to links between education and the economy. Job growth is more often associated with high skills and increased levels of education than with a lowering of skills and minimal education levels. Increased skills and knowledge also support innovation in the workplace and the development of new enterprises. The payoff is most often higher wages for the better educated. Wage rates typically elevate as the education level increases, with college graduates earning on average more than three times that of workers who have only completed elementary school and almost double that of high school completers.[6] Furthermore,

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[4] New Jersey Commission on Higher Education, Proposed Master Plan for Higher Education in New Jersey, 1996.

[5] Eurich, The Learning Industry: Education for Adult Workers. Princeton: The Carnegie Foundation for the Advancement of Teachers, 1990.

[6] Levitan and Gallo, Got to Learn to Earn: Preparing Americans for Work, Occasional Paper 1991-3, September 1991, Center for Social Policy Studies.

increased years of schooling is associated with increases in productivity. According to the National Center on the Educational Quality of the Workforce, a 10% increase in the average educational level of workers (equivalent to slightly more than an additional year of school) is associated with an 8.6% increase in output.[7]

Projected job creation for the State clearly illustrates the need for increased education and skills. Through the year 2000, the majority of new jobs will require more advanced educational skills, with 36% requiring one or more years of college. Conversely, lower skilled jobs such as goods producing factory jobs (those requiring less education) have and will, for the most part, continue to decrease.[8] It is also true that many current New Jersey employers and those considering relocating to the State are interested in the quality of the workforce and the educational/training infrastructure to support workforce development. As such, New Jersey's Customized Training Program operated by the Department of Labor is seen as part of the State's strategy for economic development. Through skills development, technology and knowledge transfer, and small business support programs, e.g., business incubators, the State's education and training providers can play a major role in developing small businesses.

Compelling Logic for Change

The last twenty years have witnessed dramatic transformation in the nature of the world economy and of work itself. These changes have been driven by the following factors:

Global Competition: America's enormous advantage as the dominant economic power in the postwar era has been tempered by the development of more equality among the industrialized nations. The net result is a global marketplace where quality, innovation, reduced costs, customization of products and the sophistication of the customer are key variables. In this environment, there is a stark choice between developing a low skill/low wage or high skill/high wage workforce.

Changing Workplace: The evolving workplace is based on a participative model that emphasizes teamwork. The traditional command/control form of management is being replaced; authority is becoming more decentralized. By granting more autonomy to work teams, organizations seek a more self-directed and self-reliant workforce. The nature of work itself has also changed with its emphasis on "knowledge work" requiring enhanced skills. Workers are now required to be adept at

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[7] This represents a more dramatic increase in productivity than is achieved through a similar rise in the book value of a company's capital stock. See Youth Record, Vol. 7 # 13, July 15, 1995.

[8] Job growth and job decline projections derived from data on current employment trends in New Jersey presented at the March 26, 1996 SETC meeting by Dr. James Hughes Dean, Bloustein School of Planning and Public Policy, Rutgers University) to the SETC March 26, 1996.

accessing and utilizing vast quantities of sophisticated information. Indeed, even the location of the workplace is changing as the virtual corporation and telecommuting become more prevalent.

New Understanding of Learning and Education: Economic factors are driving the change in what is valued as an essential education. This is not to say that the traditional functions of education are less important, but that the relative importance of workforce preparation has increased. The degree to which the distinction between academic and vocational education is eliminated determines how the education of the whole person can move forward. Education must be an essential ingredient in the way we work and live as well as the catalyst for creating new jobs. Learners must have accurate labor market and program information to make appropriate occupational decisions. In this context, the outcomes and quality of learning are being redefined to reflect customer satisfaction.

Exponential Growth of Knowledge and Information: The amount of knowledge available, the rapidity of its growth and its accessibility have expanded in an unprecedented manner. The need for students and workers, teachers and counselors, parents and citizens to keep pace with this change is also unprecedented.

Technology: Computers and telecommunication are two of the revolutionary forces in changing the way businesses operate. The implications of these technologies on work cannot be overestimated. They have a direct bearing on the way the workforce must be trained or retrained. The rise to prominence of the Internet has made information available in ways unimagined in the past. Moreover, the transmission of knowledge through interactive media will make it possible to deliver educational programs in startling new ways. The conceptual "school without walls" is now a reality as distance learning, interactive Internet and CD-ROM technologies flourish.

However, the educational system has not kept pace with these and other changes, thus resulting in increased employer dissatisfaction with the output of the current system. While the America of a quarter century ago could safely avoid developing a strategy for improving the quality of the workforce, the America of today and the approaching century clearly cannot. Jobs increasingly require skilled workers; however, many workers are inadequately prepared to meet the new skill demands of the workplace.[9] The waste of "human power" has a substantial social cost as the mismatch between the demands of the labor market and the skills of the workforce widen. In some measure the rapidity of change in the business community has made it difficult for schools to anticipate what workers will require.

As a result, high school graduates who do not go on to postsecondary programs -- approximately 50% of the student body -- more often than not flounder occupationally until about age 28 when they secure

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[9] United States General Accounting Office. Training Strategies: Preparing Noncollege Youth for Employment in the U.S. and Foreign Countries. Washington D.C.: GAO/HRD-90-88, May, 1990.

their first meaningful jobs and begin carving out careers. More than one-fourth of these young people have not attained high school competency because they either dropped out or graduated without achieving mastery of academic skills.[10] Likewise, roughly half of the students who do pursue postsecondary education do not finish and often find themselves less than prepared for the workplace. Even college graduates are realizing the widening gap between what they bring to the workplace and what employers expect. This latter phenomenon is exacerbated by the increased number of college graduates who return to schools, such as two-year colleges and proprietary schools, for further training. In adulthood, skill deficiencies and lack of appropriate educational credentials most often relegate individuals to low wage jobs or unemployment. The lack of basic literacy skills represents a formidable barrier to success in this economy.

Current Situation

Our educational system is at a critical juncture. As we move from the 20th to the 21st century and from an industrial to an informational economy, the educational system must better prepare all learners for current and future challenges. According to the New Jersey Department of Education publication, Vital Education Statistics, almost 18,000 students dropped out of the State's K-12 system during the 1993-1994 school year.[11] Census data for 1990 indicates that there were 39,052 individuals between the ages of 16 to 19 years not enrolled in school who had not earned a diploma.[12] The problem persists in adulthood, with roughly 23% of the State's residents age 25 or older lacking a high school diploma or GED.[13]

Equally disturbing is that more than 60% of the dropout population are nonwhites, with African Americans accounting for approximately 37% and Hispanics, 24%.[14] Johnson and Parker (1987) point out in Workforce 2000: Work and Workers for the Twenty-first Century that the majority of new entrants to the labor force will be nonwhite and/or female.[15] This does not bode well for our economic future. If our educational system continues to fail significant segments of the future labor force, there will be a scarcity of qualified workers to meet employers' needs.

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[10] Ibid

[11] New Jersey Department of Education. Vital Education Statistics 1994-95. Trenton, NJ: PTM No. 1067.00, March, 1995.

[12] Social and Economic Characteristics, Census of the Population of New Jersey, 1990.

[13] United States Department of Education, National Center for Educational Statistics 95-122, 1995.

[14] Ibid, Vital Education Statistics.

[15] Johnson and Parker. Workforce 2000: Work and Workers for the Twenty-first Century. Indianapolis: Hudson Institute, Inc. 1987.

Coupled with the problem of dropouts is the significant number of students who complete school but lack the skills necessary to be successful in the workplace and other adult life roles. These individuals enter adulthood with poor literacy skills and dim job prospects. Approximately 51% (3.1 million) of the State's 6.1 million adults function at the two lowest literacy levels as measured by Educational Testing Service,[16] lacking the skills to meet the demands for many current and future jobs.

Students deficient in basic skills are more likely to be school dropouts, teenage parents, jobless, welfare recipients, or involved in crime.[17] For example, it is estimated that between 70% and 75% of the State's correctional population -- similar to national findings (NALS) -- function at very low literacy levels.[18] Consigned to low economic status, some of these individuals along with others from the State's immigrant population turn to second chance programs, such as JTPA and adult literacy education to remediate their skill deficiencies. More than 50% of the State's JTPA Title II participants have basic skills deficiencies.[19]

According to data provided by New Jersey's Commission on Higher Education, approximately 43% of those learners who entered degree programs at the State's county colleges in the fall of 1993, lacked proficiency in reading and writing, 48% in math computation, and 65% in elementary algebra as measured by the college basic skills test. Across all public four-year colleges and universities, more than one-third of entering students lack proficiency in reading and writing and math computation and one-half lack proficiency in elementary algebra. Furthermore, the five-year graduation rate for four-year public institutions was 51%. For county colleges, 39% of students have graduated, transferred, or remain at the institution four years after enrollment. Clearly, many of those who enter college are ill-prepared; likewise, many students do not graduate.

The New Jersey Department of Education data[20] reveal that for the 1995-1996 funding year there are 94 federally funded Adult Basic Education (ABE) and English as a Second Language (ESL) programs, 58 state-funded GED programs, and 57 adult high schools in the State. During the 1994-1995 year, a total of 48,328 adults participated in these programs, which is roughly 1.5% of the State's estimated 3.1 million low literate adults who could clearly benefit from these programs. Although other providers, e.g., literacy volunteer instructors, fee-based providers, other government training programs, etc., also

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[16] Jenkins and Kirsch. Executive Summary from Adult Literacy in New Jersey: Results of the State Adult Literacy Survey. New Jersey: Educational Testing Service, May, 1994.

[17] Berlin and Sum. Toward a More Perfect Union: Basic Skills, Poor Families, and Our Economic Future. New York: Ford Foundation, February, 1988.

[18] Source: Task Force on Corrections Education minutes.

[19] Date provided by the New Jersey Department of Labor, JTPA office.

[20] Source: Data from the Office of Specialized Populations, New Jersey Department of Education.

offer instruction, adult education practitioners indicate that many programs report long waiting lists because the need clearly exceeds the supply. Likewise, in many locations the traveling distance to the nearest program is also identified as a deterrent for many adults in need of instruction.

Supporting Data

Much has been written about the variance between what educational institutions produce and what employers want. There is growing consensus that the system is not doing an effective job in preparing its students for the changing workplace. Likewise, there is ample evidence to affirm the need to develop clear goals and quality indicators for the adult education and second chance system, and to sufficiently fund this enterprise.

To obtain additional data on employers' perceptions of the effectiveness of the State's workforce readiness system, the Task Force mailed in 1995 approximately one thousand surveys to small, medium and large employers to assess workplace skill requirements. Because a random sample was not used and the response rate was roughly 10%, definitive conclusions cannot be drawn from the result. However, the survey's findings do show that employers who responded acknowledge critical skill deficiencies among their workforce. They also expressed the importance of keeping the educational system current with business needs through enhanced collaborative relationships between employers and educators (see Appendix A).

The SETC conducted four public hearings in January of this year to stimulate discussion and to solicit opinions on linking education to workforce readiness and ensuring that New Jersey's workforce is able to meet the formidable challenges of the next century.

A total of 116 people attended the four hearings; 36 gave testimony. The Task Force received written testimony from a few people who expressed interest in the issues, but could not attend any of the hearings. As appropriate, these comments are integrated into this document (see Appendix B).

Vision

We envision a responsive educational system that will facilitate learning and produce fulfilled and productive citizens in the State of New Jersey. All learners involved in the system -- students, workers and those seeking employment -- will gain confidence and feel well prepared to face the tremendous social and economic challenges inherent in our changing world. The State will enhance its competitiveness in the economic development arena by ensuring the continued excellence in its workforce. This future can only be achieved by the establishment of partnerships among the key stakeholders in the workforce readiness system.

Mission

We believe it is critical to provide essential skills, an enriched academic curriculum, and workforce preparation, using multiple methods. Now, more than ever, educators must honor both the different ways in which people learn and the wide variety of goals they have upon entering the system. Wherever appropriate, the system must emphasize contextual learning[21] and draw upon the most current technology. Project based learning and portfolio review[22] as a means of assessing the contributions and development of individuals should be included in the educational process to foster creativity and student potential.

Administrators, educators, counselors and educational boards, e.g., school boards, boards of trustees, and advisory boards, must be on the cutting edge of this change. They must receive corresponding preparation for their roles and adopt "lifelong learning" as a desirable goal. The traditional "authoritarian" and "passive learning" models ill serve the needs of today's students and workers who rely heavily on their ability to locate information, analyze it and communicate it in team-based settings. Learners will "learn by doing" in a collaborative structure, emphasizing teamwork and self-improvement, commensurate with the changes taking place today in the workplace. How students and workers are educated and the learning skills they acquire, may ultimately be as important as the content being conveyed.

The educational system must be reoriented towards facilitating "School-to-Work" and "Work-to-School" transitions. The opportunity for a work-based learning experience is essential for the younger learner. Whenever possible, these experiences should be paid and represent a "real job." However, community service, unpaid work, in-school enterprises, can also be valuable learning experiences. Paid work-based learning opportunities should also be available for economically and educationally disadvantaged workers as well. The experience of more mature workers with employment histories should serve as a foundation to further develop, enhance, and enrich their learning and future work experiences.

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[21] Learning that is presented in the context that it will be used in real life. Work-based learning provides an excellent opportunity for contextual learning because learners can test their newly acquired knowledge and skills on real situations. Gardner in The Unschooled Mind: How Children Think and How Schools Should Teach offers compelling evidences for integrating contextual learning methodologies.

[22] Project based learning and portfolio review refer to a methodology of teaching and assessing learning. Learners work on projects that relate to broad themes that cut across subject disciplines. According to Gardner in The Unschooled Mind: How Children Think and How Schools Should Teach, learning involves producing, perceiving, and reflecting. In this active process of learning, learners collect, in a portfolio, both their finished product and the materials that document their attempts and development toward their final product. Review of these portfolios provide rich information about the entire learning activity, not just the result.

The partnership between the business community and educational providers is crucial for ensuring that learners are able to connect their experiences at work with those in the classroom. Another important benefit that can be derived from these partnerships is increased opportunity for resource sharing between the two sectors. Education providers can gain greater financial support, access to equipment and technology, and a field learning laboratory for students and faculty. Business and industry, conversely, gain through a better prepared workforce, through research and development efforts of higher educational institutions, through cost sharing for educating and training workers, and through opportunities to better educate corporate training staff.[23]

Many, if not most high school students have part-time jobs during the school year and full-time jobs in the summer. Ways must be found to help students apply those experiences to their school activities. By working with businesses that employ students, schools can enrich the experiences of these students.

The high school transcript needs to be transformed into one that reflects the students' work experiences as well as academic achievements. In this way, the link between academic and vocational experiences will be clear and students will have greater motivation to apply themselves in school. From the point of view of the business community, such a partnership will produce better employees and offer businesses the satisfaction of contributing to the development of young people. This is an example of the old adage "Doing well, by doing good."

The majority of the labor force, through the first decade of the new millennium, has already reached adulthood. However, as documented by the National Adult Literacy Survey[24] and the State Adult Literacy Survey (both conducted by ETS) many adults lack the academic skills employers often expect workers to possess. For example, according to the State Survey, approximately 1.4 million of the six million adults in the State score at the lowest literacy level, another 1.7 million function at the second lowest literacy level. These individuals typically have difficulty with tasks requiring integration or synthesis of information from complex or lengthy texts or performance of quantitative tasks that involve setting up problems and performing two or more sequential operations.

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[23] The benefits of collaborations between employers and higher education institutions are discussed in the following: Davis Relating Work to Adult Higher Education. The Journal of Continuing Higher Education. Vol.42, #1, 1994 and Davis and Galloway. Prospering through Partnering: A Strategy for Historically/Predominantly Black Colleges and Universities. The Journal of Continuing Higher Education. Vol. 43, # 2, 1995. Many of these benefits can apply to partnerships with educational providers at all levels.

[24] Kirsh, Jungeblut, Jenkins, and Kolstad. Adult Literacy in America: A First Look at the Results of the National Adult Literacy Survey. Washington DC.: US Department of Education, September, 1993.

The goal is a seamless workforce readiness system where all students, workers and those seeking employment can acquire the skills to attain available employment opportunities or create new enterprises, new jobs, based on continuous upgrading of skills. The positive linkage between integrated workforce planning and economic development will be enhanced. Employers, educators and students as the primary customers of the system must feel satisfied with its outputs.

Skills, Competencies and Delivery Systems

Students need a good grasp of essential language,[25] computational, logic, technology and communications skills before they move on to more advanced forms of learning and preparation for employment. There should be, however, emphasis on another set of essential skills: thinking and problem-solving, development of personal qualities and understanding of interpersonal interactions, and the ability to understand organizational needs. These newly defined skills parallel those outlined in the **Secretary's Commission on Achieving Necessary Skills**, a study for the United States Department of Labor that describes the knowledge and foundation skills students need to compete in the workplace. The lack of these skills in the workforce is repeatedly identified by employers. Students must achieve competency in the traditional, as well as the newly defined "essential skills." They must also learn the art of putting different skills together to solve problems, which can be facilitated through interdisciplinary, project-based learning. This approach is designed to achieve a truly balanced environment for holistic learning and preparation to attain one's fundamental life/work goals.

Throughout the educational process, experiential learning should be infused in the curriculum; students should be exposed to "apprenticeship-like" and "mentorship" opportunities to further enhance their understanding. The finished product, the educated student, will have acquired strong academic skills learned in context and applied to real-life situations. These skills will equally prepare students for further education - lifelong learning - and entrance into the workplace. The student will have developed the technical life and work skills through an integration of classroom, workplace, and community-based learning experiences. Finally, the student will have been socialized into adult roles developed through a variety of experiences including those involving work and citizenship activities. Although developing the "educated student" will be the ultimate goal, the educational system will recognize the varied levels of preparation, academic and occupational, and the immediacy of life and work needs, which typically differentiate adult students from their younger counterparts.

To achieve the stated goals, a new, flexible and facilitative structure must be developed. The system will be perceived as omnipresent, enhanced by technology and driven by shared stakeholder purpose. The result will be a comprehensive lifelong learning system with the following major characteristics:

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[25] The Task Force believes that the mastery of English is critical for succeeding in today's labor market. It is also recognized that the global economy and cultural diversity will make it important to learn and value other languages.

- Students should always experience "an open door."
- Administrators, teachers and counselors must reshape their roles to include working with teams that organize projects, and consult on materials and technology.
- Computers must increasingly be viewed as key communications tools and no student should be disadvantaged in terms of access and breadth of networking and computing knowledge.
- The "school," as a virtual classroom or "one-room outpost" should be a place where the diversity and learning style of all entrants is respected and woven into the educational process.
- Enriched work experience must be available to all students.

Integrated Stakeholders

Stakeholders in the system are students, higher education, teachers, administrators, government, employers, organized labor, parents, school and college boards and a wide variety of community-based organizations. Interaction of stakeholders should be geared to produce optimum management of resources, create synergy, and lower barriers. This interaction provides the proper environment for change and performance. The stakeholders need to view the workforce preparation components as a system. It is important for stakeholders to clearly understand the needs of their customers. However, because of the overriding importance of the educational system to the health of the society and the economy, society as a whole actually constitutes its customers. The system, then, must be shaped and influenced to satisfy needs of both its proximate customers and its broader societal-wide customer base. The overarching interest of all these customers is to meet the goal of producing a competitive workforce. A primary task that needs to be accomplished is the education of all stakeholders about the importance of this system transformation and their role in the emerging partnership. One crucial element in this effort is the formation of an action-oriented consortium working to build School-to-Work partnerships, apprenticeships, student work sites, mentoring and a host of other dynamic activities. Workforce Investment Boards will be the major catalyst for developing these initiatives.

The stakeholders must create a more effective balance between academic preparation and workforce readiness in the various parts of the school system by:

- Focusing on external customer satisfaction;
- Developing an integrated system to support economic development and;
- Sharing resources in innovative ways.

Increasing active cooperation and knowledge-sharing between educators and employers will be a central theme, carried out with joint objectives in a spirit of flexible partnership. Bureaucracy will be minimized and all stakeholders will have input into accountability measures and "continuous improvement plans."

Accountability Measurement

A transformational process includes accountability for both performance and progress toward change. Accountability measurement must support customer satisfaction as the focal point for the new measures. Measures will take into account the three values that are outputs of the system: human development, economic effectiveness, and satisfaction of customers needs.[26]

Project-based learning and individual portfolios, a method of teaching and assessing learning in an applied context, should be included as a viable option for assessing overall student learning. Review of these learning samples should be conducted by teacher panels in the interdisciplinary model, with input from other individuals, such as mentors, coaches, and others who have supported and facilitated the learning process. Workers would self-assess their learning along with counselor-mentors skilled at designing and implementing dynamic life-work plans.

For employers, the new accountability system would revolve around their own assessment of economic, customer and human value. Employers and educators will design and adhere to such measures which may be customized to employers or industry groups. Over time, the workforce development/ deployment measures being used by employers and educators will converge. Performance-based accountability and continuous improvement of the evaluation process anchors the whole system.

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[26] Based on a quality model, participants in the system are classified as either suppliers or customers of one another. Their interaction, is viewed as a responsive process whereby the two engage in dialogue and continuous improvement of the system/process measured in terms of cost, quality of the learning and customer satisfaction.

Recommendations

The premise that lies behind this report is that workforce preparation must be seen as an essential component of the educational system. The educational system must strategically focus on a broad workforce readiness agenda which integrates the disparate stakeholders with one another. Because this Task Force has just scratched the surface of this massive endeavor, the recommendations presented below are preliminary and suggest continued analysis and cooperative planning to transform the current educational system into one that is in concert with the needs of the workplace and the State's overall workforce readiness strategy. These recommendations are designed to support and extend the conceptual basis of the core curriculum currently being developed by the Department of Education and to connect workforce readiness reform efforts of the various segments of the educational/training system.

Connecting Activities and Oversight:

- Workforce Investment Boards (WIBs) must assume overall responsibility for local School-to-Work planning and become the focal point for promoting and facilitating linkages and collaborations between and among districts in a county or multi-county area and with employers, organized labor, postsecondary educational institutions, and community-based organizations. WIBs must also ensure that literacy is at the core of the local workforce readiness system.

- Stakeholder involvement in schools, postsecondary institutions, and other educational providers must be expanded to provide for input from the broader community in which learners live and work. WIBs can play an integral role in facilitating involvement from a broad spectrum of stakeholders.

- Integration among various segments of the educational system should be strengthened. This should include better coordination between K-12, community and four-year colleges, adult education and literacy and occupational programs, apprenticeships, and other occupational postsecondary educational experiences. Better articulation between and within the various segments of the system must be accomplished to facilitate movement within the system and to ensure appropriate recognition and documentation of learning.

- Schools should be given the flexibility to create innovation; however, they must be held accountable for the success of their students. Through changes in state and local policies and regulations and waiver provisions, educators can be empowered to improve the system. However, schools and programs must be accountable for achieving appropriate outcomes. Programs should be increasingly competency-based, open entry/exit.

- All learners in the system must be given the opportunity to maximize their potential, regardless of age, race, gender, disability, socioeconomic status, etc. Programs must be available and

accessible to all learners. Programs and curricula must be designed to take full advantage of individual differences in learning styles and intellectual strengths.

- The State must develop incentives for all size employers to provide education/training opportunities for current workers, disadvantaged and displaced workers, and School-to-Work apprentices/interns.

Stakeholder Education:

- Pre-service and in-service training programs for educators must be improved so that all teachers, counselors, administrators, and school boards are better prepared to meet the challenges of educational reform. The objective of this training is to ensure that teachers and counselors are better grounded in their content areas and understand the context in which their disciplines' knowledge can be applied in the "real world" and to equip them with the tools to be more effective practitioners. During pre-service preparation, consideration should be given to providing "real world" experiences for teacher trainees. Likewise, training for educational leaders should provide them with knowledge and skills to support quality and innovation.

- Teacher certification requirements must reflect the new workforce readiness agenda. The Department of Education, with input from stakeholder groups, must develop new guidelines for teacher education programs, focusing on current and future student and society needs.

- Current teachers must be afforded the opportunity to participate in the workplace outside of the school and to learn new skills and methods that support the changing economy and prepare students for a "career" in learning. Teachers are part of the learning system; as such, they must learn to model lifelong learning, technology utilization, and workplace skills and knowledge. Workplace mentors and coaches must also be trained to ensure that they contribute to the growth of the learners under their guidance.

- Graduate and undergraduate schools of education must adapt their teacher training curriculum to meet the needs of this reform agenda.

- Educators should be made aware of new theories on learning, e.g., learning style and multiple intelligence, and provided with training to integrate these ideas, where appropriate, into curriculum design and delivery.

- Parents and school board members must be educated about the importance of integrating workforce preparation with the educational curriculum. Central to this effort must be persuading these groups that training for the workplace is a necessity for all students. Students must also receive this message as part of their career exploration and planning activities.

Curriculum:

- The educational system must adopt a reform agenda that emphasizes technology in the classroom, infusion of contextual learning into the curriculum and integration of work-based and school-based learning.

- Authentic assessment methodologies should be incorporated into the curriculum to provide students and teachers with greater opportunity to measure a broad spectrum of student learning and provide more meaningful and useful documentation and analysis of that learning.

- Curriculum must emphasize the acquisition of skills and knowledge that provide learners with a solid foundation in academic, vocational, work readiness, and entrepreneurial areas.

- Standards for workplace readiness, such as the "Cross-Content Workplace Readiness Standards and Progress Indicators," introduced by the Department of Education in its Core Curriculum Standards must be addressed at all levels of education for students who are new entrants into the workplace.

- Career education curriculum must begin in elementary school.

- Distance learning and technology assisted learning must be incorporated into the curriculum delivery system at all levels of education.

- Open entry/exit programs that are competency-based should be introduced and expanded at the secondary level and beyond.

State Leadership:

- The State Employment and Training Commission will establish a statewide task force/work group to coordinate and provide oversight at the State level to the various state agencies that will be responsible for implementing these recommendations. The task force/work group will be responsible for integrating other workforce readiness initiatives of the Departments of Education, Commerce and Economic Development, Community Affairs, Human Services, Labor, and the Commission on Higher Education, into a coordinated statewide agenda. The task force/work group will ensure appropriate and strong linkages between a coordinated K-

infinity [27] system and the evolving labor market. These recommendation will be integrated into the update of A Unified State Plan for New Jersey's Workforce Readiness System.

- A strategy to fund technology infusion into all schools and libraries and a plan to provide technical assistance to districts and other education providers in integrating technology into the curriculum should be developed. A key element of this strategy should be to link all schools and libraries to the Internet and to develop a method for assuring low income families Internet access. To this end, we support the recommendations issued by the Education Technology Task Force in their report, Technology and New Jersey's Schools in the 21st Century, with particular emphasis on their proposed five-year technology plan with its associated funding levels.

[27] The K-infinity designation denotes a seamless educational system that facilitates and supports learning from kindergarten throughout life, a continuous system of lifelong learning. With this designation, the Task Force acknowledges the growing requirement for students to acquire skills and knowledge beyond secondary school.

Appendix A

Employer Survey
Results

In August and September of 1995 the Task Force on Education and Workforce Quality designed and mailed an Employer Needs Assessment survey to approximately 1000 small, medium, and large employers in New Jersey. Without adjusting for undeliverable surveys, the response rate was 10%. (The rate would have been adjusted higher if the approximately 150-200 undeliverable returned mailings were eliminated from the count.) Because the sample was not random and the response rate was low, interpretation is limited to the respondents. Key findings indicate that employers responding to the survey:

- Would like the educational system to offer students more work-based learning opportunities, e.g., internships, co-ops, work study for students;
- Want schools to expand their curricula to better reflect the needs of business and industry;
- Want schools to teach business ethics and etiquette, customer service, quality management techniques, and job specific skills;
- Want students prior to entering the workforce, to acquire basic proficiencies in the use of computers, software, and other technologies used in business;
- Want schools to provide students with a solid foundation in traditional academic skills, i.e., oral and written communications, math, and reading and the new set of essential skills, i.e., critical thinking, problem solving, interpersonal relations, and personal qualities.

Although respondents indicated that the majority of new hires could perform job functions, they often demonstrated critical skill deficiencies that are consistent with the expectations employers have of the educational system, as mentioned above.

Employers emphasized the importance of keeping the educational system current with business needs through enhanced collaborative relationships between employers and educators. They indicated that both students and educators need opportunities to work with business and see how it operates. The majority of surveyed employers further indicated that basic skills, analytical skills, clerical/administrative skills, computer-related skills (including knowledge of software packages), and general business and leadership skills are important for current and future jobs.

Appendix B

Public Hearings

In January of this year the State Employment and Training Commission (SETC) distributed a draft report of the Task Force along with an announcement of four public hearings to approximately 2000 individuals. Through this process, the SETC sought to stimulate discussion and to solicit opinions on the importance of linking education to workforce readiness, ensuring that New Jersey's workforce is able to meet the formidable challenges of the next century.

Place	Date	Time
County College of Morris Student Center, Randolph	February 26, 1996	10 a.m.-12 p.m.
Cherry Hill Township Municipal Bldg., Cherry Hill	February 27, 1996	10 a.m.-12 p.m.
Mercer County College Theater, West Windsor	February 28, 1996	10 a.m.-12 p.m.
JFK Conference Center JFK Hospital, Edison	February 29, 1996	6 p.m.-8 p.m.

A total of 116 people attended the four hearings and 36 gave testimony. In addition, the Task Force received written testimony from a few people who expressed interest in the issues, but could not attend any of the hearings. Comments from the testimonies were grouped into 13 categories. Summary statements for each category is presented below:

- The emphasis of the report is too heavily focused on the K-12 system. The report should stress all segments of the system and opportunities for all learners.
- Involvement of key stakeholders in the emerging system is essential and all of them should be referred to in the report.
- Government plays a significant role in system reform. State agencies must fulfill their responsibilities and be responsive to the citizens they serve. Since WIBs will assume a local planning and decision making role in the system, they should include key stakeholders.

- There is a need for a promotional campaign to emphasize the importance of work preparedness for all students.
- Workforce preparation is important. School-to Work and Work-to-School initiatives should be expanded.
- The skills, competencies, and delivery mechanisms of the system must change to reflect current and future workforce needs.
- The system must incorporate technology to facilitate self directed and distance learning.
- Adult education and literacy must be at the core of the system.
- Resources are essential to improving the system. Where will additional resources come from to support innovation?
- The quality of education must improve. Benchmarks should be developed based on the successes of other countries.
- The educational system must determine employer and student needs in order to provide effective programs.
- Lack of adequate transportation can be a formidable barrier to school-based and work-based educational reform.